

Cement Post Job Report

Client: PDC Energy

Well Name: Elkhead 3N

API #: 05-123-48492-00

Job Date: March 24, 2021

Job Type: New Well - 5.5" Production String

Cement Company & Contact: EXERO Well Integrity -
Cheve Meyer 720-239-3819



ROCK SOLID
WELL INTEGRITY
SOLUTIONS

Job Treatment Log

Client:		Well Name and Number:		Rig Name:		Date:		Ambient Conditions (Temperature / Humidity / Air Pressure)	
PDC Energy		Elkhead 3N		Ensign 142		3/24/2021		30 deg F / 75% / 24.94 in	
Date (MM/DD/YY)	Time (HH:MM)	Density (ppg)	Rate (BPM)	Volume	Cumulative Volume	Pressure	Treatment Details		
3/23/2021	6:00:00 PM						Crew gets called out. Requested time 0200 3/24/21		
	11:30:00 PM						Crew arrives on location		
3/24/2021	1:00:00 AM						Crew rigs up iron and hoses needed for job		
	1:30:00 AM						Crew waits for rig to finish circulating		
	5:30:00 AM						Crew has a safety meeting with company man and rig crew discussing the job		
	5:55:00 AM	8.33	5.00	3.0	3.0	700.0	Filled lines 3 bbls		
	5:59:00 AM						Pressure tested lines to 5000psi		
	6:06:00 AM	12.00	8.00	100.0	103.0	800.0	Pumped 100bbls of Spacer at 12ppg with surfactant		
	6:22:00 AM						Drop bottom plug		
	6:25:00 AM	12.90	10.50	294.0	397.0	1000.0	Pumped 294bbls of Lead at 12.9ppg(1464sks, 1.13yld.3.93gal/sk)		
	7:03:00 AM	13.70	10.50	320.0	717.0	1800.0	Pumped 320bbls of Tail at 13.7ppg(1312sks,1.37yld,6.61gal/sk)		
	7:35:00 AM						Shutdown wash pump and lines to pit		
	7:43:00 AM						Drop top plug		
	7:43:00 AM	8.33	8.00	10.0	727.0	1100.0	First 10bbls of Displacement was sugar and biocide		
	7:55:00 AM	8.33	10.00	90.0	817.0	2300.0	100 bbls away of displacement		
	8:13:00 AM	8.33	7.00	100.0	917.0	3700.0	200bbls away of displacement. At 262 away got spacer to surface. Got calculated spacer to surface 78bbls		
	8:27:00 AM	8.33	7.00	100.0	1017.0	3700.0	300bbls away of displacement		
	8:29:00 AM	8.33	4.00	40.0	1057.0	3200.0	Slowed rate last 20bbls to 4 bpm to land plug		
	8:38:00 AM		4.00	2.0	1059.0	2800.0	Landed plug 2 bbls past calculated displacement 341 bbls total		
	8:41:00 AM						Pumped 5 bbls over per company man for wet shoe, pressure equaled 2900 psi		
	8:49:00 AM						Checked floats got 4 bbls back		
							Rig down		



Centralizer Depths

Well Name: Elkhead 3N

Production, Set Depth: 15,296.0ftKB

API 05123484920000		Surface Legal Location SWNE 6 3N 65W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,975.00	Original KB Elevation (ft) 5,003.00	KB-Ground Distance (ft) 28.00	Spud Date 3/21/2021 20:30	Rig Release Date 3/24/2021 12:00	On Production Date	Abandon Date					

Casing Run Tally												
Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
8	1	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			15,210.8	85.18
10	3	Casing Joints	5 1/2	20.00	P-110	Yes	46.00	Yes			15,117.8	178.23
12	5	Casing Joints	5 1/2	20.00	P-110	Yes	45.35	Yes			15,025.5	270.53
14	7	Casing Joints	5 1/2	20.00	P-110	Yes	43.25	Yes			14,935.1	360.88
16	9	Casing Joints	5 1/2	20.00	P-110	Yes	46.90	Yes			14,841.3	454.69
18		Marker Joint	5 1/2	20.00	P-110	Yes	11.81	Yes			14,782.3	513.70
20	12	Casing Joints	5 1/2	20.00	P-110	Yes	45.95	Yes			14,690.2	605.80
22	14	Casing Joints	5 1/2	20.00	P-110	Yes	46.92	Yes			14,596.3	699.72
24	16	Casing Joints	5 1/2	20.00	P-110	Yes	47.30	Yes			14,502.1	793.93
26	18	Casing Joints	5 1/2	20.00	P-110	Yes	46.98	Yes			14,408.3	887.71
28	20	Casing Joints	5 1/2	20.00	P-110	Yes	46.95	Yes			14,314.4	981.57
30	22	Casing Joints	5 1/2	20.00	P-110	Yes	46.90	Yes			14,221.3	1,074.72
32	24	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			14,127.6	1,168.42
34	26	Casing Joints	5 1/2	20.00	P-110	Yes	47.01	Yes			14,033.5	1,262.53
36	28	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			13,939.5	1,356.48
38	30	Casing Joints	5 1/2	20.00	P-110	Yes	46.80	Yes			13,845.8	1,450.18
40	32	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			13,751.5	1,544.53
42	34	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			13,657.0	1,639.02
44	36	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			13,562.8	1,733.22
46	38	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			13,468.6	1,827.37
48	40	Casing Joints	5 1/2	20.00	P-110	Yes	44.35	Yes			13,377.1	1,918.92
50	42	Casing Joints	5 1/2	20.00	P-110	Yes	46.75	Yes			13,283.6	2,012.38
52	44	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			13,189.3	2,106.68
54	46	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			13,095.1	2,200.93
56	48	Casing Joints	5 1/2	20.00	P-110	Yes	47.24	Yes			13,000.6	2,295.37
58	50	Casing Joints	5 1/2	20.00	P-110	Yes	41.65	Yes			12,911.7	2,384.27
60	52	Casing Joints	5 1/2	20.00	P-110	Yes	46.56	Yes			12,820.5	2,475.48
62	54	Casing Joints	5 1/2	20.00	P-110	Yes	44.71	Yes			12,729.3	2,566.74
64	56	Casing Joints	5 1/2	20.00	P-110	Yes	46.10	Yes			12,636.0	2,659.98
66	58	Casing Joints	5 1/2	20.00	P-110	Yes	46.61	Yes			12,542.7	2,753.31
68	60	Casing Joints	5 1/2	20.00	P-110	Yes	46.71	Yes			12,449.4	2,846.57



Centralizer Depths

Well Name: Elkhead 3N

Production, Set Depth: 15,296.0ftKB

API 05123484920000		Surface Legal Location SWNE 6 3N 65W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,975.00	Original KB Elevation (ft) 5,003.00	KB-Ground Distance (ft) 28.00	Spud Date 3/21/2021 20:30	Rig Release Date 3/24/2021 12:00	On Production Date	Abandon Date					

Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
70	62	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			12,355.0	2,940.96
72	64	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			12,260.7	3,035.32
74	66	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			12,166.2	3,129.82
76	68	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			12,071.7	3,224.33
78	70	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			11,977.2	3,318.82
80	72	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			11,882.7	3,413.31
82	74	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			11,788.3	3,507.72
84	76	Casing Joints	5 1/2	20.00	P-110	Yes	47.24	Yes			11,693.9	3,602.11
86	78	Casing Joints	5 1/2	20.00	P-110	Yes	47.30	Yes			11,599.5	3,696.46
88	80	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			11,505.2	3,790.76
90	82	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			11,410.8	3,885.21
92	83	Casing Joints	5 1/2	20.00	P-110	Yes	47.24	Yes			11,352.1	3,943.87
94	85	Casing Joints	5 1/2	20.00	P-110	Yes	47.26	Yes			11,257.6	4,038.38
96	87	Casing Joints	5 1/2	20.00	P-110	Yes	47.10	Yes			11,163.3	4,132.72
98	89	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			11,068.9	4,227.12
100	91	Casing Joints	5 1/2	20.00	P-110	Yes	44.60	Yes			10,977.0	4,318.96
102	93	Casing Joints	5 1/2	20.00	P-110	Yes	46.60	Yes			10,883.8	4,412.16
104	95	Casing Joints	5 1/2	20.00	P-110	Yes	44.28	Yes			10,792.9	4,503.14
106	97	Casing Joints	5 1/2	20.00	P-110	Yes	41.60	Yes			10,708.4	4,587.64
108	99	Casing Joints	5 1/2	20.00	P-110	Yes	46.65	Yes			10,614.7	4,681.29
110	101	Casing Joints	5 1/2	20.00	P-110	Yes	46.74	Yes			10,521.0	4,775.03
112	103	Casing Joints	5 1/2	20.00	P-110	Yes	44.68	Yes			10,429.6	4,866.36
114	105	Casing Joints	5 1/2	20.00	P-110	Yes	43.05	Yes			10,340.7	4,955.26
116	107	Casing Joints	5 1/2	20.00	P-110	Yes	44.60	Yes			10,249.4	5,046.61
118	109	Casing Joints	5 1/2	20.00	P-110	Yes	46.85	Yes			10,155.8	5,140.20
120	111	Casing Joints	5 1/2	20.00	P-110	Yes	46.60	Yes			10,062.5	5,233.50
122	113	Casing Joints	5 1/2	20.00	P-110	Yes	46.60	Yes			9,971.2	5,324.80
124	115	Casing Joints	5 1/2	20.00	P-110	Yes	46.60	Yes			9,877.9	5,418.11
126	117	Casing Joints	5 1/2	20.00	P-110	Yes	46.60	Yes			9,784.7	5,511.32
128	119	Casing Joints	5 1/2	20.00	P-110	Yes	46.75	Yes			9,691.3	5,604.71
130	121	Casing Joints	5 1/2	20.00	P-110	Yes	46.70	Yes			9,597.9	5,698.12



Centralizer Depths

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Ground Elevation (ft) 4,975.00	Original KB Elevation (ft) 5,003.00	KB-Ground Distance (ft) 28.00	Spud Date 3/21/2021 20:30	Rig Release Date 3/24/2021 12:00	On Production Date	Abandon Date			

Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
132	123	Casing Joints	5 1/2	20.00	P-110	Yes	46.58	Yes			9,507.3	5,788.70
134	125	Casing Joints	5 1/2	20.00	P-110	Yes	46.90	Yes			9,414.6	5,881.45
136	127	Casing Joints	5 1/2	20.00	P-110	Yes	46.61	Yes			9,321.3	5,974.66
138	129	Casing Joints	5 1/2	20.00	P-110	Yes	46.70	Yes			9,228.0	6,067.96
140	131	Casing Joints	5 1/2	20.00	P-110	Yes	46.75	Yes			9,144.9	6,151.14
142	133	Casing Joints	5 1/2	20.00	P-110	Yes	46.58	Yes			9,055.0	6,240.97
144	135	Casing Joints	5 1/2	20.00	P-110	Yes	44.10	Yes			8,964.3	6,331.67
146	137	Casing Joints	5 1/2	20.00	P-110	Yes	47.24	Yes			8,869.9	6,426.09
148	139	Casing Joints	5 1/2	20.00	P-110	Yes	47.24	Yes			8,775.4	6,520.58
150	141	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			8,680.9	6,615.08
152	143	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			8,596.8	6,699.23
154	145	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			8,502.3	6,793.68
156	147	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			8,409.0	6,886.98
158	149	Casing Joints	5 1/2	20.00	P-110	Yes	46.51	Yes			8,315.3	6,980.67
160	151	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			8,221.1	7,074.92
162	153	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			8,126.7	7,169.31
164	155	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			8,032.3	7,263.66
166	157	Casing Joints	5 1/2	20.00	P-110	Yes	46.70	Yes			7,950.9	7,345.06
168	159	Casing Joints	5 1/2	20.00	P-110	Yes	47.20	Yes			7,856.6	7,439.41
169		Marker Joint	5 1/2	20.00	P-110	Yes	23.15	Yes			7,833.4	7,462.56
170	160	Casing Joints	5 1/2	20.00	P-110	Yes	47.26	Yes			7,786.2	7,509.82
171	161	Casing Joints	5 1/2	20.00	P-110	Yes	46.74	Yes			7,739.4	7,556.56
172	162	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			7,693.7	7,602.26
173	163	Casing Joints	5 1/2	20.00	P-110	Yes	46.70	Yes			7,647.0	7,648.96
174	164	Casing Joints	5 1/2	20.00	P-110	Yes	44.68	Yes			7,602.4	7,693.64
175	165	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			7,555.2	7,740.79
176	166	Casing Joints	5 1/2	20.00	P-110	Yes	46.75	Yes			7,508.5	7,787.54
177	167	Casing Joints	5 1/2	20.00	P-110	Yes	46.20	Yes			7,462.3	7,833.74
178	168	Casing Joints	5 1/2	20.00	P-110	Yes	47.20	Yes			7,415.1	7,880.94
179	169	Casing Joints	5 1/2	20.00	P-110	Yes	44.60	Yes			7,370.5	7,925.54
180	170	Casing Joints	5 1/2	20.00	P-110	Yes	38.00	Yes			7,332.5	7,963.54



Centralizer Depths

Well Name: Elkhead 3N

Production, Set Depth: 15,296.0ftKB

API 05123484920000		Surface Legal Location SWNE 6 3N 65W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,975.00	Original KB Elevation (ft) 5,003.00	KB-Ground Distance (ft) 28.00	Spud Date 3/21/2021 20:30	Rig Release Date 3/24/2021 12:00	On Production Date	Abandon Date					

Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
181	171	Casing Joints	5 1/2	20.00	P-110	Yes	42.35	Yes			7,290.1	8,005.89
182	172	Casing Joints	5 1/2	20.00	P-110	Yes	42.90	Yes			7,247.2	8,048.79
183	173	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			7,200.2	8,095.79
184	174	Casing Joints	5 1/2	20.00	P-110	Yes	46.71	Yes			7,153.5	8,142.50
185	175	Casing Joints	5 1/2	20.00	P-110	Yes	46.80	Yes			7,106.7	8,189.30
186	176	Casing Joints	5 1/2	20.00	P-110	Yes	46.61	Yes			7,060.1	8,235.91
187	177	Casing Joints	5 1/2	20.00	P-110	Yes	44.61	Yes			7,015.5	8,280.52
188	178	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			6,969.7	8,326.32
189	179	Casing Joints	5 1/2	20.00	P-110	Yes	44.71	Yes			6,925.0	8,371.03
190	180	Casing Joints	5 1/2	20.00	P-110	Yes	43.95	Yes			6,881.0	8,414.98
191	181	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			6,834.0	8,461.98
192	182	Casing Joints	5 1/2	20.00	P-110	Yes	44.25	Yes			6,789.8	8,506.23
193	183	Casing Joints	5 1/2	20.00	P-110	Yes	44.05	Yes			6,745.7	8,550.28
194	184	Casing Joints	5 1/2	20.00	P-110	Yes	42.10	Yes			6,703.6	8,592.38
195	185	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			6,656.6	8,639.38
196	186	Casing Joints	5 1/2	20.00	P-110	Yes	45.95	Yes			6,610.7	8,685.33
197		Marker Joint	5 1/2	20.00	P-110	Yes	23.48	Yes			6,587.2	8,708.81
198	187	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			6,540.2	8,755.81
199	188	Casing Joints	5 1/2	20.00	P-110	Yes	46.40	Yes			6,493.8	8,802.21
200	189	Casing Joints	5 1/2	20.00	P-110	Yes	47.02	Yes			6,446.8	8,849.23
201	190	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			6,399.8	8,896.23
202	191	Casing Joints	5 1/2	20.00	P-110	Yes	46.85	Yes			6,352.9	8,943.08
203	192	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			6,305.9	8,990.08
204	193	Casing Joints	5 1/2	20.00	P-110	Yes	46.91	Yes			6,259.0	9,036.99
205	194	Casing Joints	5 1/2	20.00	P-110	Yes	46.88	Yes			6,212.1	9,083.87
206	195	Casing Joints	5 1/2	20.00	P-110	Yes	46.91	Yes			6,165.2	9,130.78
207	196	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			6,118.2	9,177.78
208	197	Casing Joints	5 1/2	20.00	P-110	Yes	46.80	Yes			6,071.4	9,224.58
209	198	Casing Joints	5 1/2	20.00	P-110	Yes	45.98	Yes			6,025.4	9,270.56
210	199	Casing Joints	5 1/2	20.00	P-110	Yes	46.85	Yes			5,978.6	9,317.41
211	200	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			5,931.6	9,364.41



Centralizer Depths

Well Name: **Elkhead 3N**

Production, Set Depth: **15,296.0ftKB**

API 05123484920000		Surface Legal Location SWNE 6 3N 65W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,975.00	Original KB Elevation (ft) 5,003.00	KB-Ground Distance (ft) 28.00	Spud Date 3/21/2021 20:30	Rig Release Date 3/24/2021 12:00	On Production Date	Abandon Date					

Casing Run Tally												
Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
212	201	Casing Joints	5 1/2	20.00	P-110	Yes	38.76	Yes			5,892.8	9,403.17
213	202	Casing Joints	5 1/2	20.00	P-110	Yes	46.91	Yes			5,845.9	9,450.08
214	203	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			5,798.9	9,497.08
215	204	Casing Joints	5 1/2	20.00	P-110	Yes	46.91	Yes			5,752.0	9,543.99
216	205	Casing Joints	5 1/2	20.00	P-110	Yes	46.95	Yes			5,705.1	9,590.94
217	206	Casing Joints	5 1/2	20.00	P-110	Yes	46.91	Yes			5,658.2	9,637.85
218	207	Casing Joints	5 1/2	20.00	P-110	Yes	47.01	Yes			5,611.1	9,684.86
219	208	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			5,564.1	9,731.86
220	209	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			5,517.1	9,778.86
221	210	Casing Joints	5 1/2	20.00	P-110	Yes	46.95	Yes			5,470.2	9,825.81
222	211	Casing Joints	5 1/2	20.00	P-110	Yes	46.90	Yes			5,423.3	9,872.71
223	212	Casing Joints	5 1/2	20.00	P-110	Yes	36.80	Yes			5,386.5	9,909.51
224	213	Casing Joints	5 1/2	20.00	P-110	Yes	46.91	Yes			5,339.6	9,956.42
225	214	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			5,292.6	10,003.42
226	215	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			5,245.6	10,050.42
227	216	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			5,198.6	10,097.42
228	217	Casing Joints	5 1/2	20.00	P-110	Yes	46.92	Yes			5,151.7	10,144.34
229	218	Casing Joints	5 1/2	20.00	P-110	Yes	46.91	Yes			5,104.8	10,191.25
230	219	Casing Joints	5 1/2	20.00	P-110	Yes	46.95	Yes			5,057.8	10,238.20
231	220	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			5,010.8	10,285.20
232	221	Casing Joints	5 1/2	20.00	P-110	Yes	46.35	Yes			4,964.5	10,331.55
233	222	Casing Joints	5 1/2	20.00	P-110	Yes	46.91	Yes			4,917.5	10,378.46
234	223	Casing Joints	5 1/2	20.00	P-110	Yes	46.40	Yes			4,871.1	10,424.86
235	224	Casing Joints	5 1/2	20.00	P-110	Yes	46.81	Yes			4,824.3	10,471.67
236	225	Casing Joints	5 1/2	20.00	P-110	Yes	45.95	Yes			4,778.4	10,517.62
237	226	Casing Joints	5 1/2	20.00	P-110	Yes	46.55	Yes			4,731.8	10,564.17
238	227	Casing Joints	5 1/2	20.00	P-110	Yes	46.90	Yes			4,684.9	10,611.07
239	228	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			4,637.9	10,658.07
240	229	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			4,590.9	10,705.07
241	230	Casing Joints	5 1/2	20.00	P-110	Yes	46.91	Yes			4,544.0	10,751.98
242	231	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			4,496.8	10,799.23



Centralizer Depths

Well Name: Elkhead 3N

Production, Set Depth: 15,296.0ftKB

API 05123484920000		Surface Legal Location SWNE 6 3N 65W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,975.00	Original KB Elevation (ft) 5,003.00	KB-Ground Distance (ft) 28.00	Spud Date 3/21/2021 20:30	Rig Release Date 3/24/2021 12:00	On Production Date	Abandon Date					

Casing Run Tally												
Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
243	232	Casing Joints	5 1/2	20.00	P-110	Yes	47.24	Yes			4,449.5	10,846.47
244	233	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			4,402.3	10,893.72
245	234	Casing Joints	5 1/2	20.00	P-110	Yes	47.10	Yes			4,355.2	10,940.82
246	235	Casing Joints	5 1/2	20.00	P-110	Yes	46.91	Yes			4,308.3	10,987.73
247	236	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			4,261.1	11,034.88
248	237	Casing Joints	5 1/2	20.00	P-110	Yes	47.24	Yes			4,213.9	11,082.12
249	238	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			4,166.7	11,129.27
250	239	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			4,119.6	11,176.42
251	240	Casing Joints	5 1/2	20.00	P-110	Yes	47.24	Yes			4,072.3	11,223.66
252	241	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			4,025.2	11,270.81
253	242	Casing Joints	5 1/2	20.00	P-110	Yes	47.24	Yes			3,978.0	11,318.05
254	243	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			3,930.7	11,365.30
255	244	Casing Joints	5 1/2	20.00	P-110	Yes	47.10	Yes			3,883.6	11,412.40
256	245	Casing Joints	5 1/2	20.00	P-110	Yes	47.10	Yes			3,836.5	11,459.50
257	246	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			3,789.4	11,506.65
258	247	Casing Joints	5 1/2	20.00	P-110	Yes	47.18	Yes			3,742.2	11,553.83
259	248	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			3,694.9	11,601.08
260	249	Casing Joints	5 1/2	20.00	P-110	Yes	47.28	Yes			3,647.6	11,648.36
261	250	Casing Joints	5 1/2	20.00	P-110	Yes	47.24	Yes			3,600.4	11,695.60
262	251	Casing Joints	5 1/2	20.00	P-110	Yes	44.45	Yes			3,556.0	11,740.05
263	252	Casing Joints	5 1/2	20.00	P-110	Yes	46.72	Yes			3,509.2	11,786.77
264	253	Casing Joints	5 1/2	20.00	P-110	Yes	46.61	Yes			3,462.6	11,833.38
265	254	Casing Joints	5 1/2	20.00	P-110	Yes	47.21	Yes			3,415.4	11,880.59
266	255	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			3,368.3	11,927.74
267	256	Casing Joints	5 1/2	20.00	P-110	Yes	47.24	Yes			3,321.0	11,974.98
268	257	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			3,273.9	12,022.13
269	258	Casing Joints	5 1/2	20.00	P-110	Yes	46.10	Yes			3,227.8	12,068.23
270	259	Casing Joints	5 1/2	20.00	P-110	Yes	46.05	Yes			3,181.7	12,114.28
271	260	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			3,134.5	12,161.53
272	261	Casing Joints	5 1/2	20.00	P-110	Yes	47.24	Yes			3,087.2	12,208.77
273	262	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			3,040.1	12,255.92



Centralizer Depths

Well Name: Elkhead 3N

Production, Set Depth: 15,296.0ftKB

API 05123484920000		Surface Legal Location SWNE 6 3N 65W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,975.00	Original KB Elevation (ft) 5,003.00	KB-Ground Distance (ft) 28.00	Spud Date 3/21/2021 20:30	Rig Release Date 3/24/2021 12:00	On Production Date	Abandon Date					

Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
274	263	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			2,992.8	12,303.17
275	264	Casing Joints	5 1/2	20.00	P-110	Yes	47.18	Yes			2,945.7	12,350.35
276	265	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			2,898.4	12,397.60
277	266	Casing Joints	5 1/2	20.00	P-110	Yes	47.20	Yes			2,851.2	12,444.80
278	267	Casing Joints	5 1/2	20.00	P-110	Yes	46.60	Yes			2,804.6	12,491.40
279	268	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			2,757.6	12,538.40
280	269	Casing Joints	5 1/2	20.00	P-110	Yes	46.90	Yes			2,710.7	12,585.30
281	270	Casing Joints	5 1/2	20.00	P-110	Yes	46.95	Yes			2,663.8	12,632.25
282	271	Casing Joints	5 1/2	20.00	P-110	Yes	47.14	Yes			2,616.6	12,679.39
283	272	Casing Joints	5 1/2	20.00	P-110	Yes	47.15	Yes			2,569.5	12,726.54
284	273	Casing Joints	5 1/2	20.00	P-110	Yes	47.10	Yes			2,522.4	12,773.64
285	274	Casing Joints	5 1/2	20.00	P-110	Yes	47.24	Yes			2,475.1	12,820.88
286	275	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			2,427.9	12,868.13
287	276	Casing Joints	5 1/2	20.00	P-110	Yes	46.71	Yes			2,381.2	12,914.84
288	277	Casing Joints	5 1/2	20.00	P-110	Yes	46.50	Yes			2,334.7	12,961.34
289	278	Casing Joints	5 1/2	20.00	P-110	Yes	47.26	Yes			2,287.4	13,008.60
290	279	Casing Joints	5 1/2	20.00	P-110	Yes	47.25	Yes			2,240.2	13,055.85
291	280	Casing Joints	5 1/2	20.00	P-110	Yes	47.24	Yes			2,192.9	13,103.09
292	281	Casing Joints	5 1/2	20.00	P-110	Yes	46.68	Yes			2,146.2	13,149.77
293	282	Casing Joints	5 1/2	20.00	P-110	Yes	46.95	Yes			2,099.3	13,196.72
294	283	Casing Joints	5 1/2	20.00	P-110	Yes	46.65	Yes			2,052.6	13,243.37
295	284	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			2,005.6	13,290.37
296	285	Casing Joints	5 1/2	20.00	P-110	Yes	46.62	Yes			1,959.0	13,336.99
297	286	Casing Joints	5 1/2	20.00	P-110	Yes	46.65	Yes			1,912.4	13,383.64
298	287	Casing Joints	5 1/2	20.00	P-110	Yes	46.90	Yes			1,865.5	13,430.54
299	288	Casing Joints	5 1/2	20.00	P-110	Yes	46.51	Yes			1,819.0	13,477.05
300	289	Casing Joints	5 1/2	20.00	P-110	Yes	46.75	Yes			1,772.2	13,523.80
301	290	Casing Joints	5 1/2	20.00	P-110	Yes	46.85	Yes			1,725.4	13,570.65
302	291	Casing Joints	5 1/2	20.00	P-110	Yes	46.68	Yes			1,678.7	13,617.33
303	292	Casing Joints	5 1/2	20.00	P-110	Yes	46.74	Yes			1,631.9	13,664.07
304	293	Casing Joints	5 1/2	20.00	P-110	Yes	46.75	Yes			1,585.2	13,710.82



Centralizer Depths

Well Name: Elkhead 3N

Production, Set Depth: 15,296.0ftKB

API 05123484920000		Surface Legal Location SWNE 6 3N 65W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,975.00	Original KB Elevation (ft) 5,003.00	KB-Ground Distance (ft) 28.00	Spud Date 3/21/2021 20:30	Rig Release Date 3/24/2021 12:00	On Production Date	Abandon Date					

Casing Run Tally												
Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
305	294	Casing Joints	5 1/2	20.00	P-110	Yes	46.65	Yes			1,538.5	13,757.47
306	295	Casing Joints	5 1/2	20.00	P-110	Yes	46.71	Yes			1,491.8	13,804.18
307	296	Casing Joints	5 1/2	20.00	P-110	Yes	46.71	Yes			1,445.1	13,850.89
308	297	Casing Joints	5 1/2	20.00	P-110	Yes	46.65	Yes			1,398.5	13,897.54
309	298	Casing Joints	5 1/2	20.00	P-110	Yes	46.72	Yes			1,351.7	13,944.26
310	299	Casing Joints	5 1/2	20.00	P-110	Yes	46.71	Yes			1,305.0	13,990.97
311	300	Casing Joints	5 1/2	20.00	P-110	Yes	46.65	Yes			1,258.4	14,037.62
312	301	Casing Joints	5 1/2	20.00	P-110	Yes	46.58	Yes			1,211.8	14,084.20
313	302	Casing Joints	5 1/2	20.00	P-110	Yes	46.90	Yes			1,164.9	14,131.10
314	303	Casing Joints	5 1/2	20.00	P-110	Yes	46.72	Yes			1,118.2	14,177.82
315	304	Casing Joints	5 1/2	20.00	P-110	Yes	46.75	Yes			1,071.4	14,224.57
316	305	Casing Joints	5 1/2	20.00	P-110	Yes	46.91	Yes			1,024.5	14,271.48
317	306	Casing Joints	5 1/2	20.00	P-110	Yes	46.62	Yes			977.9	14,318.10
318	307	Casing Joints	5 1/2	20.00	P-110	Yes	46.61	Yes			931.3	14,364.71
319	308	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			884.3	14,411.71
320	309	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			837.3	14,458.71
321	310	Casing Joints	5 1/2	20.00	P-110	Yes	46.91	Yes			790.4	14,505.62
322	311	Casing Joints	5 1/2	20.00	P-110	Yes	46.71	Yes			743.7	14,552.33
323	312	Casing Joints	5 1/2	20.00	P-110	Yes	46.60	Yes			697.1	14,598.93
324	313	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			650.1	14,645.93
325	314	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			603.1	14,692.93
326	315	Casing Joints	5 1/2	20.00	P-110	Yes	46.75	Yes			556.3	14,739.68
327	316	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			509.3	14,786.68